



<b>DOCKET</b>	
<b>04-IEP-1K</b>	
DATE	OCT 5 2006
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## MEMORANDUM

October 5, 2006

To: Joseph Desmond  
Chairman  
California Energy Commission

From: Tim Carlson  
President/CEO  
Power by Renewables  
3404 Calle Del Torre  
Las Vegas, NV 89102

PBR, a renewable energy company with headquarters in Nevada, has received and reviewed a copy the September 22, 2005 IEPR Greenhouse Gas Performance Standard memorandum from Joe Desmond, Chairman, California Energy Commission to John L. Geesman, Presiding Member, Integrated Energy Policy Report Committee and James D. Boyd, Associate Member, Integrated Energy Policy Report Committee.

Below are PBR's comments on that memorandum. To provide context and continuity, our comments appear in highlighted italics after the reprinted sections of the original memo.

The September 22, 2005 memorandum states:

### **Energy Policy Leadership**

California has the opportunity and the obligation to provide leadership on fuel diversity by clearly defining and communicating its expectations. Our policies should explicitly take into account impacts on both California consumers and our neighboring states. It is particularly critical that California, as the largest western electricity market, clearly identify how it intends to meet its future needs so that

all western market participants and regulators can make informed decisions regarding future generation technologies/fuels and transmission additions. Such clearly articulated policies can provide unambiguous signals to load serving entities, generation and transmission developers, the financial community, other western states and public interest advocates.

It is equally important to recognize that Californians must be expected to pay the costs associated with these policies. California is committed to pursuing a loading order for new resources which reserves the highest priority for cost-effective energy efficiency and demand response. Next are renewable sources of power and distributed generation. If these resources are insufficient to meet increasing energy needs, investment in clean and efficient fossil fired generation is warranted.

The Governor has set a goal that 20 percent of the state's energy mix will be generated from renewable energy sources by 2010. There is a critical need to ensure that renewable generation can be delivered to load centers. Many of these resources, such as wind and geothermal, are located far from major load centers and will require transmission infrastructure investments to ensure their energy delivery. Simultaneously, the electricity transmission infrastructure must be improved to support growing demand centers and the interconnection of new generation.

*PBR's Comments:*

*The Commission may wish to consider that a portion of California's RPS may be fulfilled from renewable resources outside California. The Commission may wish to consider policies which ensure out-of-state renewables are capable of being delivered to California load centers and to coordinate and communicate those policies with neighboring states.*

The September 22, 2005 memorandum states:

Within the loading order policy, California seeks to diversify its electricity generation portfolio and to find potentially lower cost supply options. Clean coal technologies could provide substantial benefits to both California and the rest of the western region because western states' coal resources are secure and offer long-term supply availability. Transmission additions between California and the western states could not only provide these benefits, but also strengthen the reliability of the western region; protect against energy shortages and price spikes; and, combined with strong commitments to clean coal and renewable resources, reduce the cost of controlling emissions from the vast western fossil fuel resource base. With its leadership position in seeking and encouraging advanced technologies, limiting greenhouse gas production and improving its energy infrastructure, California is presented with an opportunity to influence and

encourage the use of clean coal technologies it believes are most suited to its needs and values.

*PBR's Comments:*

*PBR strongly supports the combination of commitments to clean coal and renewable resources, particularly coal that is linked to wind. PBR believes such a combination would prove cost effective, provide California with lower net greenhouse emissions, and—if viewed as a short term solution—provide time for IGCC and other low emission technologies to become commercially viable . By considering the net emissions of linked resources at the California load center instead of the emissions of a single-resource at an out-of-state generation site, California may also avoid triggering interstate commerce issues.*

The September 22, 2005 memorandum states:

**New Policy Initiatives**

**Procurement and Demonstration**

The Governor is committed to reducing California's greenhouse gas emissions while expanding its access to affordable and reliable electricity services. The Governor's top priorities for resource development, as indicated in his response to the Energy Commission's Energy Policy Reports, are energy efficiency and renewable energy resources. When California utilities and other retail electricity providers are considering new long-term investments in fossil-fueled generation, concerns properly arise regarding future costs and risks associated with greenhouse gas and other emissions from such facilities. The following policies could provide a balance of long run goals and near term progress.

**1. Specify Greenhouse Gas Performance.** Recognizing costs, risks and the state's overall greenhouse gas reduction and energy resource commitments, limits on greenhouse gas emissions can be achieved through performance goals and targets. Because California should not burden interstate commerce or discriminate against particular technologies or fuels, it should specify a greenhouse gas performance standard which it applies to all energy resources, both in-state and out-of-state, both coal and non-coal:

- i. If and when a system of mandatory limits on greenhouse gas emissions consistent with the state's GHG emission reduction targets becomes effective in California, through any combination of state, regional and federal action, decisions on new long-term commitments to fossil-fueled generation to meet the state's needs should be made in compliance with that system, including any associated rules for trading emissions to minimize the costs of reductions. California is now exploring such options through the Governor's Climate Action Team.

- ii. Prior to the adoption of such limits, California should act to minimize potentially significant reliability and cost risks by avoiding more long-term investments (exceeding 3-5 years in duration) in baseload power plants with emissions per megawatt-hour of greenhouse gases and criteria air pollutants exceeding those of a combined cycle natural gas turbine.

I would appreciate your soliciting public comments, in your IEPR Committee hearings, regarding both the merits of the particular policies proposed above and on whether power plant sponsors should be permitted to use emissions offsets procured from other sources to meet the environmental performance standard suggested by the clean coal discussion in the Committee draft IEPR and described in more detail above, and if so, what standards and verification systems should be established to govern offsets used for compliance purposes.

*PBR Comments:*

*Applying green house gas performance standards against all energy resources means applying performance standards against resources which do not emit green house gases e.g. wind.*

*The Commission may wish to either narrow the scope of resources to which it applies the standard—or apply a net standard to linked fossil and wind resources which will produce an even greater net reduction of green house gases.*

The September 22, 2005 memorandum states:

**2. Pursue Commercial Scale Western Clean Fuels Facilities.** A second new initiative would be to provide technical support for development of applications for clean coal projects that can successfully compete for federal funding and incentives. California's specific interest is in high efficiency commercial scale facilities with western system applicability.

Other possibilities in the near term include completion of the review of associating the continued operation of the Mohave Generating Station with commercial scale integrated gasification technology. Existing generation and transmission infrastructure could make it feasible for this project to more quickly and cost-effectively integrate into the California resource portfolio. A second western region priority is to assist private developers to apply for federal funds supporting a commercial scale facility using Powder River Basin coal for local and export markets. One possibility for expediting this approach would be to provide political and technical support for developers of currently proposed pulverized coal projects who are willing to apply state of the art advanced technology or preferably convert entirely to an IGCC plant, supported by Department of Energy (DOE) funding. A third commercialization path could seek the interest, capital and expertise of the oil and chemical industries in California to explore options that can use coal and coke fuels for IGCC or other technology

at commercial scales and locations compatible with state air emissions regulations. The latter approach should also be coupled with use of captured carbon for enhanced oil recovery purposes. California's chemical industries and others interested in transportation fuel substitutes such as Fischer Tropsch diesel may be encouraged to join as partners in defining co-benefits of technology commercialization projects.

While specific project proposals will need much detailed development, it is urgent that the state provide leadership, coordination and PIER research and technical support to speed technology commercialization and ensure project applications with the lowest emissions profiles and with the most economically feasible means of capturing and disposing of carbon are prepared expeditiously and submitted to DOE before other regions win funding for proposals less suitable for western applications.

*PBR'S Comments:*

*If the Commission's goal is to lower the net green house emissions, in addition to supporting resources which emit green house gases, the Commission may wish to consider supporting resources which do not emit green house gases by:*

- *Providing technical support for the application of wind projects that can successfully compete for federal funding and incentives*
- *Providing assistance to private developers to apply for federal funds to support a commercial scale facility consisting of combined wind and Powder River Basin coal*
- *Seeking interest, capital and expertise from the coal industry to explore options that link coal and wind to even further lower net green house emissions*

**3. Investigate Energy Production Synergies.** The Committee draft IEPR reports on important new work related to intermittency, renewable energy strategic benefits, and the possible value of integrating wind, hydro and existing resources. Consistent with the state's loading order, the linking of remote wind generation and rapid ramping generation facilities fueled by coal gasification products may bolster the economics of long-distance transmission investments. The record also highlights several intriguing potential synergies between clean coal generation and other energy production. For example, as noted above, production of extremely clean liquid transportation fuels from coal and petroleum coke may be a longer term option to seek reduced dependence on imported petroleum in the transportation sector.

*PBR's Comments:*

*The Commission may wish to encourage the linking remote wind generation and rapid ramping generation facilities fueled by coal gasification as a short term solution to the net reduction of green house gases.*

**About PBR**

PBR develops, builds, manages and operates utility-scale renewable energy projects. In some cases the Company sells the electricity and/or renewable energy credits generated by the projects to utilities, municipalities, rural electric cooperatives and large commercial customers.

PBR works with all major renewable technologies including solar, wind, geothermal, biomass, biogas and hybrid resources. PBR owned projects are typically organized as LLCs with PBR acting as the majority equity partner. PBR also provides turnkey design/build services for commercial renewable projects where the customer wishes to retain full ownership.

**From:** "Jeneane" <jeneane@hitechcommunications.com>  
**To:** "Joe Desmond" <joe.desmond@resources.ca.gov>, <docket@energy.state.ca.us>  
**Date:** Tue, Oct 4, 2005 2:28 PM  
**Subject:** RE: IEPR Memo from Chairman Desmond

Good Afternoon Mr. Chairman,

Per Tammy Parkinson's email request below, attached please find some thoughts on your September 22, 2005 IEPR memo from Powered by Renewables (PBR). PBR is an important Nevada renewable energy company. PBR principals include Tim Carlson, Governor Guinn's wind appointee to the Nevada Renewable Energy and Energy Conservation Task Force (Task Force), Sig Rogich, a nationally known Nevadan, and myself, a consultant to both the Nevada State Office of Energy and the Task Force.

PBR thanks you for the opportunity to share our thoughts regarding this important California process.

Warm Regards,  
Jeneane

-----Original Message-----

From: Tammy Parkison [mailto:Tparkiso@energy.state.ca.us]  
Sent: Friday, September 23, 2005 9:28 AM  
To: Tammy Parkison  
Subject: IEPR Memo from Chairman Desmond

Chairman Desmond asked me to forward the following IEPR documents for your review. He welcomes your comments.

Thanks,  
Tammy

Tammy Parkison  
Administrative Assistant for  
Joseph Desmond, Chairman  
California Energy Commission  
916-654-5000  
tparkiso@energy.state.ca.us

**CC:** "Tammy Parkison" <Tparkiso@energy.state.ca.us>, "Tim Carlson" <tim@pbrinc.biz>

**From:** "Jeneane" <jeneane@hitechcommunications.com>  
**To:** "Docket Optical System" <Docket@energy.state.ca.us>  
**Date:** Tue, Oct 4, 2005 4:39 PM  
**Subject:** RE: IEPR Memo from Chairman Desmond 04-IEP-1K Committee Draft Document Hearings

Apologies it's 04-IEP-1K Committee Draft Document Hearings

-----Original Message-----

From: Docket Optical System [mailto:Docket@energy.state.ca.us]  
Sent: Tuesday, October 04, 2005 2:40 PM  
To: jeneane@hitechcommunications.com  
Subject: RE: IEPR Memo from Chairman Desmond  
Importance: High

**\*\* High Priority \*\***

Please provide the docket number for this submittal. Thank you.

Dockets Staff  
Siting / Dockets Unit  
916-654-5076

>>> "Jeneane" <jeneane@hitechcommunications.com> 10/04/05 2:27 PM >>>  
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